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ATTN :

Chief, Supplemental Programs Division, OC

24 April 1957

25X1

Chief, Engineering Division, OC

Oscillators - IN-3X and IN-1X

1. Forwarded herewith are prototypes of the IN-3X, fixed frequency reference oscillator, and the IN-1X, variable frequency audio oscillator. The IN-3X represents the final prototype for evaluation prior to fabrication of the complete order. The IN-1X is an electrical prototype only since certain agreed upon changes in packaging will be made when the unit is returned.

2. Although the circuit study of the IN-1X has been completed, further production of this oscillator will depend on the quality of the unijunction transistors now on order. The stand-off ratios and base resistance characteristics of these transistors have been specified, in accordance with our study, to insure an accuracy of  $\pm 2\%$  over the specified temperature range. Reliability checks will be run on these transistors when received.

3. In regard to the IN-1X, a new layout will be made in accordance with our agreement. It is for this reason that the present unit is considered an electrical prototype only. The relocation of some controls and battery storage will facilitate a simplified hook-up and neater appearance. A certain minimum space must be allowed for the frequency determining capacitors as these will vary according to the particular unijunction transistor used.

4. Schematics, parts lists, and a calibration curve are included. A few control markings have been made in order to avoid ambiguity. Please specify all additional marking required.

## Attachments:

Schematics (2)  
Parts Lists (2)  
Calibration Curve (1)

R&amp;D/Lab/AJS/rkb (24 April 1957)

## Distribution:

Original and 1 - Addressee

1 - R&D Lab  
1 - OC-E Reading  
1 - OC-E Chrono  
1 - R&D Chronometer

1 - Dev/s

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